USING CLASS DATA TO DECODE A MESSAGE

1 Purpose

To use class data to decode a message.

2 Duration of Lesson

Approximately one 55 minute period.

3 Additional Topics

None.

4 Objectives

At the conclusions of this lesson students will be able to use class data to decode a message.

5 Standards & Benchmarks

The text of this item goes hereTo consecte eugue minim niam dit lutpat, sequam, core corpero exero eum

MATHEMATICS

PROBABILITY & STATISTICS

Create, compare, and evaluate different graphic displays of the same data, using histograms, frequency polygons, cumulative distribution functions, pie charts, scatter plots, stem-and-leaf plots, and box-and-whisker plots. Draw these by hand or use a computer spreadsheet programs.

PS.1.1

INTEGRATED MATHEMATICS I

Students find measures of the center and variability of a set of data, as well as construct and analyze data displays and plot least square regression lines.

IM1.4

Construct a frequency table for a set of data.

IM1.4.10

BUSINESS MATH

Construct and interpret frequency distribution.

BMTH.1.3.3

BUSINESS, MARKETING, & INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY

Students demonstrate knowledge of communication standards for networks.

IT.13.7

Demonstrate knowledge of various encoding and framing methods (e.g., Manchester, B8Z8)

IT.13.7.3

Students demonstrate knowledge of data-encoding basics.

IT.13.8

6 Vocabulary

None.

7 Materials

Questions answered in previous class lesson, computers.

8 Additional Resources

None.

9 Procedures & Methods

A. Introduction

Teacher will lead discussion of questions and answers from previous lesson. A list and the percentages the most common consonants and vowels should be listed where all students can view them. The question that needs to be addressed in this discussion is: How would this information help us in decoding a message that uses only letters in the code?

B. Development

Distribute the computers to students; working with a partner is ideal:

Students should access: http://scottbryce.com/cryptograms/

This site provides information about cryptograms, frequently used letters, words, and other data about frequency. Have students read the information provided and select a cryptogram to decode.

C. Practice

Students need to copy their coded message so they can complete the decoding as their homework assignment if they aren't able to complete it in class.

D. Independent Practice

Students will write a one page paper on their decoding process, identify how the frequency information aided in their decoding, and support their statements with information from their class data.

E. Accommodations (Differentiated Instruction)

Struggling students may need to have some hints to help them get started. Seeing groups of letters that are meaningless may be confusing.

F. Checking For Understanding

Monitor students' progress by roving throughout the classroom during the exercise.

10 Evaluation

A completed, correctly de-coded message; completed 1-page paper.

11 Teacher Reflection

To be completed by the teacher after the lesson.

12 Resources & Media

Computers

Questions answered in previous class lesson

http://scottbryce.com/cryptograms/